

# Device and Method for Tertiary Treatment of Wastewater and Other Contaminated Aqueous Media

## Abstract

A method and apparatus for treating settled, unfiltered effluent out of the secondary  
5 (aeration) stage of wastewater treatment facilities are disclosed. Designed principally  
for the denitrification, phosphorous removal, and exhaustive disinfection of the liquid  
phase after the secondary treatment of wastewater, all this in a single step and without  
chemical addition. Since no chemical agents are employed, (alkaline earth carbonates  
are considered a normal constituent of the water) the method is particularly applicable  
10 to the purification of drinking water supplies. The method and apparatus achieve high  
degrees of purification, thereby laying the basis for the reuse of wastewater so treated.  
Bio-solids are also disinfected and made filterable. Preferred and particularly  
advantageous embodiments of the system are disclosed.